

**REMARKS**

At the outset, the Examiner is thanked for the thorough review and consideration of the subject application. The Non-Final Office Action of July 2, 2003 has been received and its contents carefully reviewed.

In the Office Action, the Examiner rejected claims 1-11 under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention; claims 1-11 and 18-35 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention; claims 12-18 and 24 under 35 U.S.C. § 102(e) as anticipated by Great Britian Patent No. GB 2344840 to Kim ("Kim"); claims 12-18 and 24 under 35 U.S.C. § 102(b) as anticipated by Japanese Patent No. 9270936 to Akira ("Akira"); and claims 30 and 33 under 35 U.S.C. § 102(e) as anticipated by U.S Patent No. 6,329,975 to Yamaguchi ("Yamaguchi").

Applicants appreciate the Examiner's indication of allowable subject matter in claims 19-23, 25-29, 31, 32, 34, and 35. Applicant assumes that these claims are allowable if the rejection under 35 U.S.C. § 112 is overcome.

In rejecting claims 1-11 under 35 U.S.C. § 112, first paragraph, the Examiner requested support for the acts of "generating an intermediate signal from the input signal" and "detecting whether the intermediate signal has contiguous alternating states" and "counting a number of contiguous non-alternating states." The intermediate signal is the output from the frequency comparator 44 that compares the input signal with the pre-synchronizing signal 41. (See Fig. 4, and page 9, li. 14 to page 10, li. 5.) The intermediate signal indicates the frequency difference between the input signal and the pre-synchronization signal, and may for example do this by

producing a signal with a frequency that shows the difference in frequency between these two signals. Therefore the signal presence comparator 48 and the signal absence comparator 46 detect whether the intermediate signals has contiguous alternating states that would be due to a frequency difference between the input signal and the pre-synchronizing signal. (See Fig. 4, and page 9, li. 14 to page 10, li. 5.). Counting a number of non-alternating states, is carried out by the signal presence comparator 48 and the signal absence comparator 46 when it determines the frequency difference as indicated by the intermediate signal. (See Fig. 4, and page 9, li. 26 to page 10, li. 20.) In light of the above identified support in the specification for the terms identified by the Examiner, the Applicant believes that the rejection under 34 U.S.C. § 112, first paragraph, is overcome.

The Examiner rejected claims 1-11 and 18-35 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, the Examiner stated that in claims 1 and 7 it is not clear what is meant by “intermediate signal”, “contiguous alternating states” and contiguous non-alternating states”. As discussed above, an example of the intermediate signal is the signal output by the frequency comparator 44. (See Fig. 4.) The intermediate signal may have alternating states or non-alternating states depending upon the frequency difference indicated by the intermediate signal. When there is no frequency difference there will be no alternating states, *i.e.*, non-alternating states.

Further, the Examiner stated that in claims 18 and 24 it is not clear what is meant by “intermediate signal”. As discussed above, an example of the intermediate signal is the signal output by the frequency comparator 44. (See Fig. 4.)

Further, the Examiner stated that in claims 30 and 33 it is not clear what is meant by “in response to a **pulse number** of the input signal detected within a period range between the

maximum value and the minimum value during an **application interval** of the detection reference signal.” The pulse number is the number of continuous pulses at the output of the signal COM during an input interval of the detection reference signal. (See p. 13, li. 32 to p.14, li. 2.) The application interval is the input interval of the detection reference signal.

In light of the above explanation, Applicant believes that the rejections under 35 U.S.C. § 112, second paragraph, are overcome.

Regarding the rejection of claims 12-18 and 24 under 35 U.S.C. § 102(e) as anticipated by Kim, the Applicant believes that Kim is not available as prior art under 35 U.S.C. § 102(e). Kim was filed on August 14, 2002 in Great Britain. This date is prior to November 29, 2000 in which the current version of 35 U.S.C. § 102(e) became effective, therefore the prior version of 35 U.S.C. § 102(e) properly applies. (See MPEP § 2136.) Under the prior version of 35 U.S.C. § 102(e), international applications could not be applied as prior art under 35 U.S.C. § 102(e). Therefore, Applicant believes that Kim is not available as prior art and respectfully requests the Examiner to remove this rejection.

The rejection of claims 12-17 under 35 U.S.C. § 102(b) as anticipated by Akira is respectfully traversed and reconsideration is requested. Claim 12 is allowable over the cited reference in that claim 12 recites a combination of elements including, for example “outputting a signal of a first state if the first period is less than the first reference period”. Claim 14 is allowable over the cited reference in that claim 12 recites a combination of elements including, for example “outputting a signal of a first state if the first period is greater than the first reference period”. Claim 16 is allowable over the cited reference in that claim 12 recites a combination of elements including, for example “outputting a signal of a first state if the first period is less than the first reference period and greater than the second reference period”. Akira does not teach or suggest at least these features of the claimed invention.

Akira is directed to a synchronization detector circuit for a plasma display panel that reduces power consumption. Akira discloses a synchronization detector (2) that “outputs the signal representing the synchronization state only when the frequency of the oscillation signal output from an oscillator and frequency of the horizontal synchronizing signal are the same.” Therefore, Akira only outputs a signal state when the frequencies or periods are the same. Claims 12, 14, and 16 output signals when the periods are different as described above and are allowable over Akira. Accordingly, Applicants respectfully submit that claims 13, 15, and 17, which depend from claims 12, 14, and 16 respectively, are also allowable over the cited references.

The rejection of claims 30 and 33 under 35 U.S.C. § 102(b) as anticipated by Yamaguchi is respectfully traversed and reconsideration is requested. Claim 30 is allowable over the cited reference in that claim 30 recites a combination of elements including, for example “a period comparator for comparing a period range between a desired maximum value and a desired minimum value of the input signal.” Claim 33 is allowable over the cited reference in that claim 33 recites a combination of elements including, for example “comparing a period range between a desired maximum value and a desired minimum value of the input signal.” Yamaguchi does not teach or suggest at least these features of the claimed invention.


Yamaguchi is directed to a providing an output signal to a display whether or not a data enable signal is available. If a data enable signal is available Yamaguchi displays the image received using the received  $H_{sync}$  and  $V_{sync}$  signals. (See Fig. 3 and col. 4, ll. 42-5.) If the data enable signal is not available, Yamaguchi displays the image received using  $H_{sp1}$  and  $V_{sp1}$  generated by a start pulse generation circuit 7. (See col. 5, ll. 9-16.) Yamaguchi does not compare a period range as recited in claims 30 and 33 above. Therefore, claims 30 and 33 are allowable over Yamaguchi.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

If these papers are not considered timely filed by the Patent and Trademark Office, then a petition is hereby made under 37 C.F.R. §1.136, and any additional fees required under 37 C.F.R. § 1.136 for any necessary extension of time, or any other fees required to complete the filing of this response, may be charged to Deposit Account No. 50-0911. Please credit any overpayment to deposit Account No. 50-0911. A duplicate copy of this sheet is enclosed.

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Respectfully submitted,

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